ADMINISTRATIVE GUIDE FOR APPROVALS TO PROTECT SURFACE WATER BODIES UNDER THE *Water Act*

December 2001

Environmental Assurance
Regulatory Assurance Division

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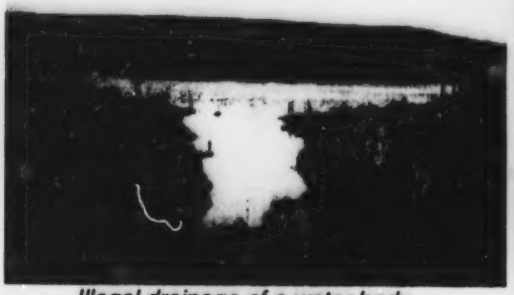
ADMINISTRATIVE GUIDE FOR APPROVALS TO PROTECT SURFACE WATER BODIES UNDER THE *WATER ACT*

Administrative Guide Intent

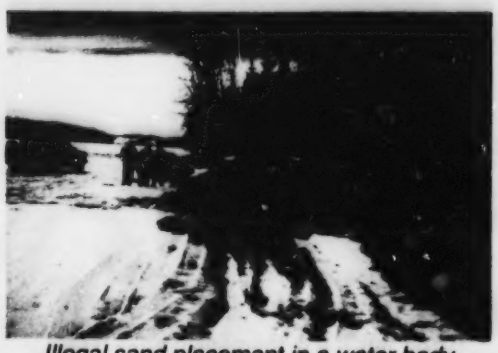
Alberta Environment (the department) is concerned about the level of unauthorized activities occurring in water bodies. Unauthorized alterations, such as, draining and infilling of water bodies cause damage to the aquatic environment and shorelines, degrades water quality and destroys wildlife and their habitat.



Illegal drainage of a water body

Illegal infilling of a water body

Illegal infilling of a water body



Illegal sand placement in a water body

This guide identifies methods to protect all permanent and intermittent natural surface water bodies throughout the province in rural and urban areas on private and public land.

The guide defines the various activities requiring approval under the *Water Act* and provides for consistent application of the *Water Act* in both rural and urban areas of the province.

Alberta's *Water Act* supports and promotes the conservation and management of water. Fundamental to the *Water Act* is the recognition that the protection of the aquatic environment is an important element of sustainable water management.

Definitions

Aquatic Environment – means the components of the earth related to, living in or located in or on water or the beds or shores of a water body, including but not limited to

(i) all organic and inorganic matter, and
(ii) living organisms and their habitats, including fish habitat,

and their interacting natural systems. *(Water Act)*

Bed and Shore - is the land covered so long by water as to wrest it from vegetation or as to mark a distinct character on the vegetation where it extends into the water or on the soil itself. *(Surveys Act)*

Intermittent/Temporary – are water bodies where the presence of water ceases for a time due to variation in climatic conditions, including snow melt/spring runoff, seasonal storms and drought conditions. These changes are considered part of a natural cycle. Intermittent/Temporary water bodies can remain dry for many years and may be fully restored after prolonged precipitation.

Proponents – are those persons who are proposing activities in a water body.

"Qualified Aquatic Environment Specialist" - *means a person who*

(i) possesses
(A) a post-secondary degree in biological sciences,
(B) a technical diploma in biological sciences, or
(C) educational equivalencies;
(ii) has a detailed knowledge of the aquatic environment, including fish and fish habitat, management and assessment; and
(iii) is currently experienced with
(A) fisheries and aquatic environment assessment methods, and
(B) the determination of mitigation measures required to maintain the productive capacity of the aquatic environment, including fish habitats in Alberta that may be adversely affected by the carrying out of works in and adjacent to the water, bed and shore of water bodies. (Code of Practice)

Riparian Area - are the lands adjacent to the water body, where the vegetation is strongly influenced by the presence of water. *(Cows and Fish Program)*

Water Body - means any location where water flows or is present, whether or not the flow or the presence of water is continuous, intermittent or occurs only during a flood, and includes but is not limited to wetlands and aquifers but does not include except for clause (nn) and section 99 "water body" that is part of an irrigation works if the irrigation works is subject to a licence and the irrigation works is owned by the licensee, unless the regulations specify that the location is included in the definition of water body. *(Water Act)*

Introduction

Natural surface water bodies, including their shorelines, riparian areas and upland drainage areas, play an important role in the environment. Unfortunately, this important role is not well recognized by the general public. These water bodies and their riparian and upland areas provide some of the following functions:

- absorb, collect and store water to reduce flooding;
- replenish groundwater to maintain water tables for wells;
- provide a supply of water for household and livestock use;
- conserve species, landscapes and habitats by providing food, homes and nurseries for fish and wildlife;
- act as carbon sinks by storing carbon from the atmosphere;
- act as mini microclimates (e.g. water cycle);
- help to filter out sediment, absorb nutrients, remove chemical residues and treat wastewater;
- control the spread of salts into cropland;
- provide a source of high quality hay; and,
- provide a resource for humans (e.g. recreational, medicinal, cultural, archeological, etc.).

Remains of an urban water body

Water Ownership

The province is the owner of all water in Alberta and the department is responsible for managing this very important resource.

Authority

Alberta's ***Water Act*** requires that an approval and/or licence be obtained before undertaking a construction activity in a water body or before diverting and using water from a water body. Some activities and/or diversions of water are exempt from requiring an approval or licence (see Appendices A and B).

Criteria for Determining a Water Body under the *Water Act*

For the purposes of this guide, the following criteria shall be used to identify a surface water body.

- Any permanent or intermittent surface water body supporting an aquatic and terrestrial environment (including soil types, plant and animal species). (e.g. slough/marsh wetlands, alkali sloughs, prairie potholes, shallow open water, ephemeral wetlands, bogs, fens, lakes, peatlands, oxbows, swamps, muskeg, water courses); and,

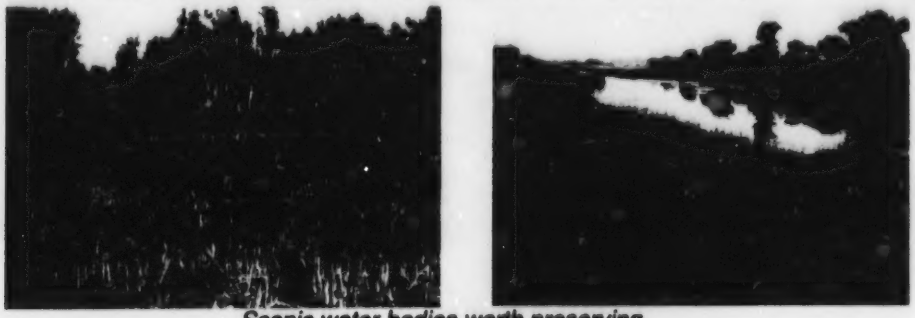
- A water body created solely as a compensatory wetland as a mitigative measure due to the loss or destruction of a previous natural surface water body.

- A wetland control project

Once a water body meets the criteria, the water body should be assessed on its value to society and the aquatic environment. The following questions need to be addressed in each situation:

- Is the bed and shore of the water body owned by the province?
- Does the water body support a rare and unique ecosystem?
- Is the water body home to any endangered species as defined by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC)?
- Does the water body provide a range of wildlife habitat in terms of quality, quantity and/or diversity?
- If the water body is destroyed or altered, what impact will it have on downstream water users, neighbouring lands or the aquatic environment?
- If the water body is destroyed or altered, will there be potential for flooding or erosion of lands in the future?
- Will the loss of the water body impact on ground water wells or the local aquifer?
- If the water body is destroyed, what impact will the loss of this water body have on operations of the farm or business with regard to possible drought situations in the future?

It should be noted that a decision to drain one small water body may seem insignificant, however, the cumulative effect of many decisions is a significant loss of water bodies and may cause water management problems, which will be felt by future generations.



Scenic water bodies worth preserving

The following are not considered water bodies for the purpose of this guide (*Water Act* approvals may still be required):

- roadside ditches;
- artificial waterbodies (reservoirs, dugouts, borrow pits, storm water detention/retention ponds, etc.) that are not constructed as wetland control projects or as a mitigation measure for the loss of natural water bodies; and,
- temporary flooding of land during snowmelt, spring runoff or heavy rainstorms.

Activities related to Water Bodies requiring an Approval under the *Water Act*:

- partial or complete infilling of a water body for recreational, agricultural, and industrial uses, road construction, residential development or any other purpose;
- any activity impacting or has the potential to impact (cumulative effects) the aquatic environment and involving the disturbance, alteration, or modification of a water body which includes field ditching;
- erosion protection (e.g. rip-rap, rock armouring, gabion baskets, etc);
- removal or destruction of vegetation, aquatic plants and trees within the confines of bed and shores of a water body;
- draining of a water body; or,
- re-alignment of a water body.

Activities related to a Water Body requiring the use of a Code of Practice under the *Water Act*:

- installing a pipeline or telecommunication line or constructing a watercourse crossing in a water body.

Activities not requiring an Approval under the *Water Act* (see Appendix A for additional exemptions):

- constructing dugouts or filling in existing dugouts that are outside the confines of a watercourse, lake or wetland;
- filling in depressions that do not support an aquatic environment or leveling land contained entirely within a landowners property, and the infilling or leveling will not impact any water bodies contained on that land, and will not impact the water sources or cause flooding of neighbouring lands;
- landscaping not within a watercourse, lake or wetland, and will not impact the aquatic environment or alter the flow or volume of water on an adjacent parcel of land.

Although these activities do not require an approval under the *Water Act*, all such activities should be undertaken so that the impact on the environment is minimized.

Approvals and Mitigation Measures

An approval authorizes the "activity" of constructing works or undertaking within a water body.

It should be noted that Alberta Environment's provision of an approval under the *Water Act* does not supersede authorization required pursuant to federal and other provincial legislation.

Not all activities will be approved by Alberta Environment, especially those activities with potential to adversely affect the aquatic environment. When an activity is approved, it may be subject to conditions and require mitigative measures.

The services of a Qualified Aquatic Environment Specialist should be retained to undertake pre-development and post-development aquatic environment assessments when the department determines a need to develop mitigation options. The cost of the assessment is the responsibility of the proponent.

For further information on mitigative measures, refer to the *Sustaining Wetlands Issues Paper, No. 2000-1 "Wetland Mitigation in Canada - A Framework for Application".*

A listing of "Qualified Aquatic Environment Specialists" may be obtained from:

- Alberta Conservation Association – Phone: (780) 427-5192
- Alberta Society of Professional Biologists – Phone: (780) 434–5765
- Ducks Unlimited Canada – Phone: (780) 489-2002
- Environmental Services Association of Alberta – Phone: (780) 429-6363
- Trout Unlimited Canada – Phone: (403) 221-8360

Other Approval Requirements for Working in or Around Water Bodies

The following Acts and policies may be applicable where activities impact water bodies or their riparian and upland areas.

Legislation/Policies	Purpose
Environmental Protection and Enhancement Act	promotes the protection, enhancement and wise use of the environment
Fisheries Act (Canada)	prevents destruction of fish habitat
Migratory Birds Convention Act (Canada)	prevents destruction of bird nesting habitat
Navigable Waters Protection Act (Canada)	prevents impairment to navigation
Public Lands Act	Section 3 provides for provincial ownership of beds and shores of permanent and naturally occurring water bodies. Approvals under this Act are required for shoreline modifications or encroachments on bed and shore
Surveys Act	Section 17(3) defines the location of the legal bank and the extent of the bed and shore of a waterbody (see definition on page 4)
Wetland Management in the Settled Area of Alberta - An Interim Policy (only hardcopies available)	used to achieve the departments no net-loss strategy of wetlands on private and public land. The intent of the policy is to: • conserve slough/marsh wetlands in a natural state • mitigate degradation or loss of slough/marsh wetland benefits as near to the site of disturbance as possible • enhance, restore or create slough/marsh wetlands in areas where wetlands have been depleted or degraded

Enforcement

An approval is required under the *Water Act* prior to undertaking any activity affecting a water body. Any unauthorized activity may result in enforcement action, which could lead to prosecution under the *Water Act* or other Acts (see Appendices C and D).

General Information

For a current version of this guide or information on water policy or other regulatory matters visit the departments website at: http://www3.gov.ab.ca/env/water.html

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Copies of "Wetland Management in the Settled Area of Alberta - An Interim Policy" are available from:

Alberta Environment
Information Centre
Main Floor, Great West Life Building
9920 - 108 Street
Edmonton, Alberta
T5K 2M4

Phone: (780) 944-0313

Copies of the report "Sustaining Wetlands Issues Paper, No. 2000-1 Wetland Mitigation in Canada - A Framework for Application" are available from:

Secretariat
North American Wetlands Convention Council (Canada)
Suite 200, 1750 Courtwood Crescent
Ottawa, Ontario
K2C 2B5

Phone: (613) 228-2601

Copies of "Caring for the Green Zone – Riparian Areas and Grazing Management" are available from:

Alberta Sustainable Resource Development
Fish and Wildlife Service
YPM Place
530 – 8 Street South, Bag 3014
Lethbridge, Alberta
T1J 4C7

Phone: (403) 381-5281

Copies of "Caring for Shoreline Properties – Changing the Way We Look at Owning Lakefront Property in Alberta" are available from the Alberta Conservation Association website at: http://www.ab-conservation.com/whats_new.asp or from:

Alberta Environment
Information Centre
Main Floor, Great West Life Building
9920 - 108 Street
Edmonton, Alberta
T5K 2M4

Phone: (780) 944-0313

Copies of "Guidelines for Lakeshore Use" brochure are available from:

Alberta Environment
Information Centre
Main Floor, Great West Life Building
9920 - 108 Street
Edmonton, Alberta, T5K 2M4

Phone: (780) 944-0313

APPENDIX A

Water Act
Water (Ministerial) Regulation

SCHEDULE 1

ACTIVITIES THAT ARE EXEMPT FROM THE REQUIREMENT FOR AN APPROVAL

1(1) In section 2(c), "crossing" includes but is not limited to a watercourse crossing, bridge crossing, culvert crossing or ford, but does not include an ice or snow bridge, pipeline crossing or telecommunication line crossing.

(2) Despite subsection (1), the only bridge crossing included in "crossing" is a single span bridge.

2 The following activities are exempt from the requirement for an approval:

(a) placing, constructing, installing, maintaining, replacing or removing a floating platform or a portable or seasonal pier, boat launch or dock in or adjacent to a water body;

(b) placing, constructing, installing, maintaining, replacing or removing a fence in or adjacent to a water body;

(c) placing, constructing, installing, maintaining, replacing or removing a crossing in a water body where

(i) the water body is not frequented by fish,

(ii) the hydraulic, hydrologic or hydrogeological characteristics of the water body are not altered at flood events below the one in 25 year flood event,

(iii) the size of the culvert used in constructing the crossing, if applicable, is 1.5 metres or less in diameter,

(iv) there is no diversion of water from the water body, and

(v) the installation of the crossing is not part of a causeway through a lake, slough, wetland or other similar water body;

(d) landscaping that is not in a watercourse, lake or wetland if the landscaping does not result in

(i) an adverse effect on the aquatic environment on any parcel of land, or

(ii) any change in the flow or volume of water on an

adjacent parcel of land;

(e) installing a water supply line in, adjacent to or beneath a water body for the purpose of diverting water from the water body, if the line is installed by directional drilling or boring, and if a licence is not required for the diversion of the water;

(f) installing a portable pump or portable water supply line in or adjacent to a water body if there is not a significant alteration or disturbance of the bed or shore of the water body;

(g) removal of debris from a water body that is not frequented by fish if the person removing the debris owns or occupies the land adjacent to the water body where the debris is located;

(h) removal of a beaver dam from a water body if the person removing the beaver dam owns or occupies the land adjacent to the water body where the beaver dam is located, or has been authorized to remove the beaver dam under section 95 of the Act;

(i) drilling a water well if

(i) the person drilling the water well is the owner of

(A) the land on which the water well is to be located, and

(B) the drilling machine,

and

(ii) the water from the water well is to be used solely for household purposes under section 21 of the Act;

(j) drilling or reclaiming an exploratory test hole or borehole if the purpose of the drilling is unrelated to groundwater exploration or the drilling of a water well, and the drilling or reclaiming does not occur in a watercourse, lake or wetland;

(k) reclamation of a water well;

(l) constructing, installing, maintaining, replacing or filling in a dugout, except where the dugout is located in a watercourse, lake or wetland;

(m) commencing, continuing or carrying out an activity that is referred to in section 3 of this Regulation.

AR 205/95 Sched. 1;200/99

APPENDIX B

Water Act

Water (Ministerial) Regulation

SCHEDULE 3

DIVERSION OF WATER OR OPERATIONS OF WORKS THAT ARE EXEMPT FROM THE REQUIREMENT FOR A LICENCE

1 *The following diversions of water and any operations of works associated with those diversions do not require a licence:*

(a) a diversion of water of up to 1250 cubic metres per camp per year for the purposes of human consumption, sanitation, fire prevention and other uses related to the camp;

(b) a diversion of groundwater from a water well that is equipped with a manual pump if the water is diverted by use of the manual pump;

(c) a diversion of water from a dugout for any purpose if

(i) water is naturally impounded in the dugout from surface water run-off, and no pumping has been done to facilitate the impoundment,

(ii) the dugout is not situated within a watercourse, lake or wetland at any time,

(iii) the capacity of the dugout is up to 12 500 cubic metres in volume, and

(iv) the total diversion of water from the dugout is up to 6250 cubic metres per year,

unless otherwise specified in an approved water management plan;

(d) a diversion of surface water for the purpose of operating an alternative watering system for livestock that are generally grazed;

(e) a diversion of saline groundwater;

(f) a diversion of water for the purpose of dewatering a sand and gravel site or construction site if

(i) the water diverted as a result of the dewatering is

(A) moved into and retained in an on-site pit, without using the water, or

(B) diverted back into a water body without using the water, if the water is equal to or of the same quality as the water that was originally diverted,

(ii) the dewatering site, the water body and the on-site pit referred to in subclause (i) are hydraulically connected,

(iii) there is no adverse effect on the aquatic environment or on a household user, licensee or traditional agriculture user, and

(iv) in the case of a construction site,

(A) there is no adverse effect on any parcel of land, and

(B) the maximum duration of the dewatering operation is 6 months or less for the entire construction project;

(g) a diversion of water for the purposes of fire fighting;

(h) a temporary diversion of water that is referred to in section 6 of this Regulation.

APPENDIX C

Alberta ENVIRONMENT

News release

No. 00-054 For immediate release: Saturday, July 1, 2000

"Though it is tempting to try to alter or enhance what nature has already provided us, Albertans must not take any action to disturb a water body without an approval."

Halvar C. Jonson, Minister of Environment

Altering a water body may get you in over your head

Edmonton: So you're tired of looking out your acreage window at that unsightly slough at the edge of your property. Or maybe you are planning a new subdivision and intend on filling those "nuisance wetlands." Perhaps you'd just like to add a few yards of beach to your lakefront cottage. How about digging a small side channel from that creek that meanders past your back yard to supply the landscaping project you've been planning?

As we move further into the landscaping and outdoor season, Alberta Environment would like to remind all landowners that they must apply for, and receive, an approval under Alberta's *Water Act* before making any alterations to a water body. And there are some very good reasons that approvals are required.

That "unsightly wetland" may be home to a variety of plants and wildlife. The weedy or rocky shoreline that would look "so much better with a load of sand" is important spawning habitat for fish species and provides shelter for smaller fish and insects and hunting grounds for birds and other wildlife. And the creek that could supply your backyard pond probably took centuries to develop and move to its current location for a very good reason.

For all of these reasons and more, land developers, landscape architects, engineering consultants, municipal governments and any other landowners or individuals who are involved in rural or urban land development or landscaping should contact their nearest Alberta Environment office *before undertaking any works which alter a water body.* For phone numbers, look in the blue pages of your local telephone book or dial 310-0000 toll-free for assistance.

In accordance with provincial legislation, construction activities or other disturbances to any water body are subject to review and approval under the *Water Act.* This includes activities on private lands resulting in the filling, drainage or shoreline alteration of permanent or intermittent sloughs, lakes, wetland areas or watercourses. The temporary or permanent diversion of water from any water body for purposes other than household or traditional agricultural use also requires authorization. Other provincial legislation including the *Public Lands Act* and the *Environmental Protection and Enhancement Act* may also apply.

Failure to comply with these acts may result in enforcement action by Alberta Environment. The wilful destruction of migratory bird nests or destruction of fisheries habitat is a federal offence.

APPENDIX D

No. 99-020 For immediate release: Tuesday, May 4, 1999

A Lesson on Lakeshores--Leave Them Alone

Edmonton - On Wednesday, April 28, 1999, two men in Stony Plain District Court received penalties totalling $2000 for damage to the lakeshore and bed of Wabamun Lake. R. G. E and C. G. W. plead guilty to charges under the *Fisheries Act* (Section 35[1]) for the harmful alteration, disruption or destruction of fish habitat caused when they bulldozed a section of beach and bed at Point Allison on Wabamun Lake, on September 18, 1998.

The two major reasons for fish declines are man-caused: overexploitation of the fisheries resource and habitat destruction. Although the exact contribution of habitat at Point Allison, for example, to the production of fish is difficult to measure, there is a cumulative effect each time habitat is altered. The clear message for lakeshore residents and lakeshore users across Alberta is it is important to avoid any disruption of habitat if our fisheries are going to survive.

In addition to enforcement, promotion of shoreline conservation education is a key tool in deterring habitat alteration. To this end, fully $1500 of the penalties levied in the recent Point Allison case were earmarked for the Alberta Conservation Association's Shoreline Conservation Education Strategy, which will communicate shoreline conservation messages to residents of summer villages.

Creative sentencing encourages long-term solutions to natural resource management concerns. The guilty parties sentenced in the Point Allison case suggested their penalty go toward public education related to shoreline modifications.